

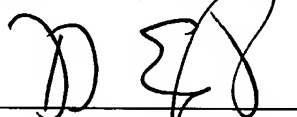
Further, Gohlke discloses dosing a compact fluorescent lamp (commonly such lamps are "amalgam controlled" lamps) with a dosing body formed from 2-45 weight percent mercury and an amalgamative metal. There is no disclosure nor suggestion whatsoever in Gohlke of forming the dosing body from an amalgam comprising more than 45 weight percent mercury, nor is such a method of dosing obvious from the teachings of Gohlke.

With reference to the Zn-Hg phase diagram shown in Figure 2 of this application, it is known to one of skill in the art to maintain the weight percent of the mercury below 45 weight percent to prevent the formation of a mixture of gamma phase and liquid phase or a mixture of gamma phase and beta phase in the amalgam.. The formation of such mixtures in the amalgam as would be expected from the equilibrium phase diagram, results in a sticky, paste-like material which is not desirable for dosing lamps. It is known that the formation of gamma phase, being a peritectic reaction, does not follow the equilibrium phase diagram except under very slow solidification cooling rates and that most peritectic reactions solidify with an excess of enriched liquid phase. Thus, it is not obvious to form a zinc amalgam comprising more than 45 weight percent mercury which is suitable for dosing a lamp.

Further, the claims recite many other patentable limitations. For example, the prior art fails to disclose or suggests pellets formed by rapid solidification of molten amalgam; pellets having an outer shell with zinc-rich portions; pellets having an interior with mercury-rich liquid portions; pellets which are in a metastable, non-equilibrium state; or binary amalgams.

Consideration and allowance of new Claims 37-53 is solicited. No new matter has been added.

Respectfully submitted,



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